Remarks

In view of the above amendments and the following remarks, reconsideration and further examination are requested.

The specification has been reviewed and revised to make a number of editorial revisions and to address the objection thereto. No new matter has been added by these amendments. As a result, withdrawal of the objection to the specification is respectfully requested.

The drawings have been objected to because Figures 1-4 contain labels that are not in the English language. Replacement Figures 1-4 are enclosed herewith in which the labels have been translated into English. No new matter has been added by these amendments. As a result, withdrawal of the objection to the drawings is respectfully requested.

Claims 1, 2, 4-10, 12-17, 19-27, 29-50 and 53-62 have been rejected under 35 U.S.C. §102(b) as being anticipated by Neushäfer (WO 96/35940). Claims 3 and 28 have been rejected as being unpatentable over Neushäfer in view of Fattinger (US 5,455,178). Claims 11 and 51 have been rejected as being unpatentable over Neushäfer in view of Rudigier (US 5,738,825). Claim 18 has been rejected as being unpatentable over Neushäfer in view of Sunagawa (US 5,101,459). Claim 52 has been rejected as being unpatentable over Neushäfer in view of Groger (US 5,577,137). These rejections are respectfully traversed and are submitted to be inapplicable for the following reasons.

Claim 1 is patentable over Neushäfer, relied upon in the rejection, since claim 1 recites a sensor platform having, in part, an optical film waveguide comprising a first optically transparent layer, a second optically transparent layer having a lower refractive index than the first optically transparent layer, and a grating structure being operable to incouple excitation light to a plurality of laterally separated measurement areas, wherein the plurality of laterally separated measurement areas are located on the first optically transparent layer, the grating structure is continuously modulated in an area of the plurality of laterally separated measurement areas, and the grating structure is operable to prevent a cross-talk of luminescence generated in any one measurement area of the plurality of laterally separated measurement areas and coupled back into the first optically transparent layer to any other measurement area of the plurality of laterally separated measurement areas. Neushäfer fails to disclose or suggest an optical film waveguide as recited in claim 1.

Neushäfer discloses a device having a laser diode 13, a coupling-in grating 3 located on a sensor platform 8, a coupling-out grating 3' also located on the sensor platform 8, and a detector 14. A first filter 9 is located between the laser diode 13 and the coupling-in grating 3 and a second filter 9 is located between the coupling-out grating 3' and the detector 14. The sensor platform 8 contains a waveguide 1 such that light enters the waveguide 1 from the coupling-in grating 3 and exits the waveguide 1 from the coupling-out grating 3'. A flow through cell 11 is attached to the bottom of the sensor platform 8 via a plurality of seals 10, thereby creating a sample space 12 between the sensor platform 8 and the flow through cell 11. (See Figure 6 and page 29).

The rejection indicates that the coupling-in grating 3 and the coupling-out grating 3' correspond to the grating structure recited in claim 1 and are operable to prevent a cross-talk of luminescence generated in any one measurement area of the plurality of laterally separated measurement areas and coupled back into the first optically transparent layer to any other measurement area of the plurality of laterally separated measurement areas. In order to support this contention, the rejection relies on the disclosure of Neushäfer at page 7. This portion of Neushäfer specifically states that "[w]hen several sample solutions are analysed [sic] simultaneously, the separate waveguiding regions prevent cross-talk between luminescence signals from different samples." However, this statement is not related to the coupling-in grating 3 and the coupling-out grating 3'. Instead, the prevention of cross-talk in the device of Neushäfer is accomplished by divisions 2 located between the sections of the waveguiding layer 1. The divisions 2 are formed either by an adsorbing material on the surface of the waveguiding layer or by a reduction in the effective refractive index in the plane of the layer, and are provided to separate the waveguiding sections. It is apparent from the disclosure of Neushäfer that the separation created by the divisions 2 is responsible for the prevention of cross-talk and not the coupling-in grating 3 and the coupling-out grating 3' as suggested in the rejection. Nothing in Neushäfer supports the position that the coupling-in grating 3 and coupling-out grating 3' are responsible for the prevention of cross-talk. (See page 7, lines 13-17; page 9, lines 13-27; and Figures 1(a) - 2(d), 3(a), 4(a) and 5(a)).

As a result, it is clear that Neushäfer fails to disclose, or even suggest, a grating structure as recited in claim 1.

In sections 8-11, the Examiner has relied on (1) Fattinger, (2) Rudigier, (3) Sunagawa, and (4) Groger as disclosing (1) unidiffractional and multidiffractional gratings, (2) a grating structure having a laterally varying periodicity, (3) a grating having a laterally varying grating depth, and (4) polarization-selective detection, respectively. However, even if the Examiner's reliance on these references is accurate, none of these references discloses or suggests a grating structure as recited in claim 1.

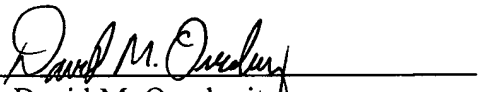
As for claims 23, 36, 41, 44, 53, 55, 56 and 58-62, they are patentable over the references relied upon in the rejections for the same reasons as set forth above in support of claim 1. That is, claims 23, 36, 41, 44, 53, 55, 56 and 58-62, like claim 1, recite a grating structure that is continuously modulated in an area of the plurality of laterally separated measurement areas, wherein the grating structure is operable to prevent a cross-talk of luminescence generated in any one measurement area of the plurality of laterally separated measurement areas and coupled back into the first optically transparent layer to any other measurement area of the plurality of laterally separated measurement areas, which feature is not disclosed or suggested in the references.

Because of the above mentioned distinctions, it is believed clear that claims 1-62 are allowable over the references relied upon in the rejections. Furthermore, it is submitted that the distinctions are such that a person having ordinary skill in the art at the time of invention would not have been motivated to make any combination of the references of record in such a manner as to result in, or otherwise render obvious, the present invention as recited in claims 1-62. Therefore, it is submitted that claims 1-62 are clearly allowable over the prior art of record.

In view of the above amendments and remarks, it is submitted that the present application is now in condition for allowance. The Examiner is invited to contact the undersigned by telephone if it is felt that there are issues remaining which must be resolved before allowance of the application.

Respectfully submitted,

Andreas ABEL et al.

By: 

David M. Ovedovitz
Registration No. 45,336
Attorney for Applicants

DMO/jmj
Washington, D.C. 20006-1021
Telephone (202) 721-8200
Facsimile (202) 721-8250
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